The Nomenclature of the Laws of Association.

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The Laws of Association are often distinguished by psychologists into Primary and Secondary, and the distinction is one of importance and even necessity. The primary laws are those fundamental relations, which must exist between thoughts in order to render one capable of suggesting another. The secondary laws are merely certain subordinate influences, such as the intensity or recentness of thoughts, which modify the action of the primary laws. Accordingly, when the Laws of Association are spoken of without any qualifying phrase, it is always the primary laws that are understood. It is to these laws, therefore, that the present paper refers.

Now, there are two fundamental relations by which the mutual suggestion of thoughts is determined; and, consequently, the Primary Laws of Association are, in their highest generalization, reducible to two. These may be expressed as follows:—

I. States of mind, identical in nature, though differing in the time of their occurrence, are capable of suggesting each other;

II. States of mind, though differing in nature, if identical in the time of their occurrence, are capable of suggesting each other.

These two laws evidently comprehend all possible cases of suggestion, as they apply both to phenomena which are identical and to those which are different in nature. The first law requires, in order to the possibility of suggestion, that there be a natural resemblance between the suggesting and the suggested states of mind. Thus when I hear a sound which I recognize as the voice of a friend, the recognition implies that the sound of the present moment suggests to me the sound of the voice heard before. Now, the two sounds are similar in their nature; they differ merely in the time of their occurrence, the one being heard now, the other having been heard on some previous occasion. The two sounds, therefore, fulfil the conditions of the first law. But the act of which we are speaking—the recognition of a particular sound as being the voice of a friend—implies something more. Not only does the present recall the former sound, but it recalls also the friend's appearance, with which that sound is associated. Now, there is no natural resemblance between a man's visual appearance and the sound of his voice, but the two have, by hypothesis, been in the mind at the same time. They, therefore, fulfil the conditions of the second law, and the one is thereby rendered capable of suggesting the other.

Such is the general purport of these laws. The nomenclature, by which they are distinguished can scarcely be said to be universally determined among psychologists. The names, Law of Similarity and Law of Contiguity, are those adopted, perhaps most commonly, in English psychological literature. At the same time these terms can scarcely

be said to be unexceptionable. Similarity does not express the complete identity in nature, which the first law supposes; and Contiguity expresses a relation of space more appropriately than a relation in time. It seems unfortunate, therefore, that recent English psychologists should generally have overlooked the very suggestive nomenclature adopted for these laws by Sir William Hamilton,—the Law of Direct Remembrance, and the Law of Indirect Remembrance.* Perhaps these terms were suggested by the expressions, *unmittelbare und mittelbare Reproduction*, used by Herbart.† Herbart's expressions would be literally rendered into English by the words, *immediate* and *mediate*. These are the terms which Hamilton himself uniformly employs for the ideas which he expresses in the nomenclature of these laws by *direct* and *indirect*. It would not, therefore, be a violation of his own general usage to substitute the one set of terms for the other.

Although the significance of the terminology adopted by Hamilton has been overlooked among English psychologists, yet it has not failed to find recognition in Germany. No man has done more for psychology in recent times than the late Professor Lotze; and the language of his countryman Herbart is that which he also employs in speaking of the laws of association.‡ The example of one of the greatest living psychologists may also be cited here, while it affords an opportunity of mentioning an apparently original suggestion of his own. Wundt not only refers to the terminology of Herbart, but he uses in addition the phrase, *innere und äussere Association*.§ These adjectives, which in English would be properly rendered by *intrinsic* and *extrinsic*, seem peculiarly adapted to distinguish associations founded on intrinsic resemblances of mental states from those which imply merely the extrinsic accident of simultaneous occurrence in consciousness.

Now, an instrinsic identity of mental states is the relation by which they are *immediately* associated; simultaneity, on the other hand, operates only through the *medium* of some such identity. This may be illustrated by the example cited above,—the recognition of a friend's voice,—which may be taken as a simple type of all association. In that instance it was shown that suggestion runs primarily and immediately along the line of the instrinsic resemblance between the sound heard now and the sound heard before. It was shown further, that it is only when the previous sound has been thus recalled, that through it there are reinstated in consciousness any of the attendant circumstances which went to make up the complete mental condition of the moment when that sound was heard. The action, therefore, of simultaneity as an associative or suggestive power, is always of necessity mediate. I have found it useful, especially with students, to illustrate the combined operation of these laws by means of a diagram like the following, in which, continuing the example already used, we may let S_1 stand for a previous sound, S_2 for any subsequent repetition of the same, while AS is a symbol for any mental states, like the visual appearance of a person, not necessarily having any resem-

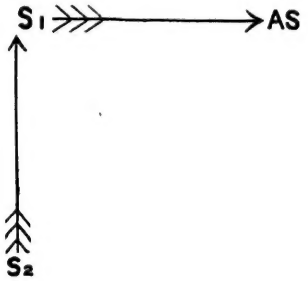
* See his Dissertation appended to *Reid's Works* (Note D * * * pp. 192-3). It is a matter of regret that this dissertation was left in an incomplete state at the author's death, but it contains the only correct exposition of his doctrine. It seems strange that Mr. Mill, in his *Examination of Sir W. Hamilton's Philosophy*, should have based his criticism of this doctrine on a very imperfect and misleading exposition in Hamilton's *Lectures on Metaphysics*.

† Werke, vol. V., pp. 24–5.

‡ *Mikrokosmus*, vol. I., p. 236. See also the recent outline of his lectures on psychology, *Grundzüge der Psychologie* (1881), p. 22.

§ *Grundzüge der Physiologischen Psychologie*, vol. II., p. 300 (2nd ed.)

blance to the sound, but associated with it in consciousness at the time. The arrows point in the line of suggestion.



All science is not reducible, as some have supposed, to mere exactness of nomenclature; nor, when terms have become fixed in general usage, is it desirable to introduce the confusion which almost inevitably results from a change. But the present case is one in which usage is still vacillating, and for that reason it appears to me that an improvement would be reached in psychological nomenclature, if for Law of Similarity were substituted Law of Immediate and Intrinsic Association, for Law of Contiguity, Law of Mediate and Extrinsic Association.